8 CLAIMS

- 1. A multi-service platform system, comprising:
- a switch node coupled to receive a DS3 signal, wherein the DS3 signal is translated to a packet-based signal at the switch node;
 - a plurality of payload nodes; and
 - a packet switched backplane coupling the switch node and the plurality of payload nodes, wherein data from the DS3 signal, as the packet-based signal, is distributed to one or more of the plurality of payload nodes via the packet switched backplane.

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- 2. The multi-service platform system of claim 1, wherein the packet-based signal can be one of an InfiniBand, Serial RapidIO and Ethernet packet based signal.
- 3. The multi-service platform system of claim 1, wherein the packet switched backplane comprises a plurality of packet-based links, wherein the switch node receives a plurality of DS3 signals, and wherein data from two of the plurality of DS3 signals, as the packet-based signal, are distributed over one of the plurality of packet-based links from the switch node to one of the plurality of payload nodes.
- 4. The multi-service platform system of claim 1, wherein the packet switched backplane is an embedded packet switched backplane.
 - 5. The multi-service platform system of claim 1, wherein the packet switched backplane is an overlay packet switched backplane.

- 6. The multi-service platform system of claim 1, wherein the DS3 signal is processed at one or more of the plurality of payload nodes.
- 7. The multi-service platform system of claim 1, wherein the packet switched 30 backplane is a CompactPCI Serial Mesh backplane.
 - 8. The multi-service platform system of claim 1, wherein the packet switched backplane is a VMEbus switched serial standard backplane.

- 9. The multi-service platform system of claim 1, wherein distribution of the DS3 signal to one or more of the plurality of payload nodes is dynamically remapped.
- 5 10. A method, comprising:

receiving a DS3 signal at a switch node;

translating the DS3 signal to a packet-based signal at the switch node; and distributing data from the DS3 signal, as the packet-based signal, to one or more of a plurality of payload nodes via a packet switched backplane.

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- 11. The method of claim 10, wherein the packet-based signal can be one of an InfiniBand, Serial RapidIO and Ethernet packet based signal.
- 12. The method of claim 10, wherein the packet switched backplane comprises a plurality of packet-based links between the switch node and the plurality of payload nodes, wherein receiving a DS3 signal comprises receiving a plurality of DS3 signals at the switch node, and wherein distributing the DS3 signal comprises distributing data from two of the plurality of DS3 signals, as the packet-based signal, over one of the plurality of packet-based links from the switch node to one of the plurality of payload nodes.

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- 13. The method of claim 10, wherein the packet switched backplane is an embedded packet switched backplane.
- 14. The method of claim 10, wherein the packet switched backplane is an overlay packet switched backplane.
 - 15. The method of claim 10, further comprising processing the DS3 signal at one or more of the plurality of payload nodes.
- 30 16. The method of claim 10, wherein the packet switched backplane is a CompactPCI Serial Mesh backplane.

- 17. The method of claim 10, wherein the packet switched backplane is a VMEbus switched serial standard backplane.
- 18. The method of claim 10, further comprising dynamically remapping distribution of the DS3 signal to one or more of the plurality of payload nodes.
 - 19. A switch node comprising a computer-readable medium containing computer instructions for instructing a processor to perform a method of receiving and processing a DS3 signal in a multi-service platform system, the instructions comprising:

receiving the DS3 signal at the switch node;

translating the DS3 signal to a packet-based signal at the switch node; and distributing data from the DS3 signal, as the packet-based signal, to one or more of a plurality of payload nodes via a packet switched backplane.

- 20. The computer-readable medium of claim 19, wherein the packet-based signal can be one of an InfiniBand, Serial RapidIO and Ethernet packet based signal.
 - 21. The computer-readable medium of claim 19, wherein the packet switched backplane comprises a plurality of packet-based links between the switch node and the plurality of payload nodes, wherein receiving a DS3 signal comprises receiving a plurality of DS3 signals at the switch node, and wherein distributing the DS3 signal comprises distributing data from two of the plurality of DS3 signals, as the packet-based signal, over one of the plurality of packet-based links from the switch node to one of the plurality of payload nodes.

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- 22. The computer-readable medium of claim 19, wherein the packet switched backplane is an embedded packet switched backplane.
- 23. The computer-readable medium of claim 19, wherein the packet switched30 backplane is an overlay packet switched backplane.
 - 24. The computer-readable medium of claim 19, further comprising processing the DS3 signal at one or more of the plurality of payload nodes.

- 25. The computer-readable medium of claim 19, wherein the packet switched backplane is a CompactPCI Serial Mesh backplane.
- 5 26. The computer-readable medium of claim 19, wherein the packet switched backplane is a VMEbus switched serial standard backplane.
 - 27. The computer-readable medium of claim 19, further comprising dynamically remapping distribution of the DS3 signal to one or more of the plurality of payload nodes.